

In the Abstract

Line 8, please delete "and R<sup>1</sup> are as defined herein" and insert

--is H, alkyl, alkenyl, aryl-(CH<sub>2</sub>)<sub>p</sub>-, heteroaryl-(CH<sub>2</sub>)<sub>p</sub>- or cycloheteroalkyl-(CH<sub>2</sub>)<sub>p</sub>-

*(H)*  
R<sup>1</sup> is H or COR<sup>2</sup> where R<sup>2</sup> is alkyl, aryl-(CH<sub>2</sub>)<sub>p</sub>-, cycloheteroalkyl-(CH<sub>2</sub>)<sub>p</sub>-, heteroaryl-(CH<sub>2</sub>)<sub>p</sub>-, alkoxy or cycloalkyl-(CH<sub>2</sub>)<sub>p</sub>-, p is 0 to 8,--.

After line 10, please add

*(S)*  
--The above compounds are useful in treating hypertension congestive heart failure, renal failure, and hepatic cirrhosis.--

REMARKS

Reconsideration of the rejection of this application is respectfully requested in view of the above amendments and the following remarks.

The Examiner has required restriction to one of the following inventions:

I Claims 1 to 15 drawn to benzoxazepinones

II Claims 1 to 15 drawn to azepinones

III Claims 1 to 15 drawn to benzazepinones

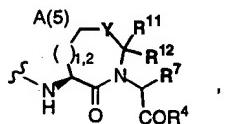
IV Claims 1 to 15 drawn to the ring system of Example 5

V Claims 1 to 15 drawn to other ring systems.

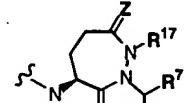
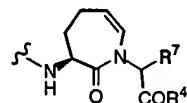
The Examiner states that

"The inventions are distinct, each from the other because: Each group represents a distinct and structurally different heterocyclic ring system. Group I uniquely has a diverse heteroatom (the oxygen), Group II is uniquely monocyclic; Group IV uniquely has a bridgehead N, and Group V is not limited to 7-membered rings or even to heterocycles. Thus, each group is able to support separate patents."

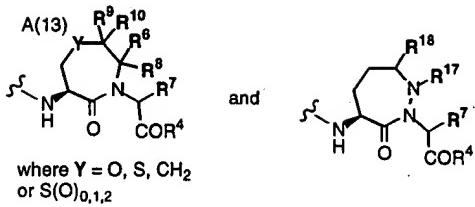
Applicant affirms his election of Group II Claims 1 to 15 drawn to azepinones which are monocyclic ring systems. However, Applicant submits that the ring systems of Group II should include the following monocyclic ring systems.



where Y = O, S, CH<sub>2</sub>  
or S(O)<sub>0,1,2</sub>

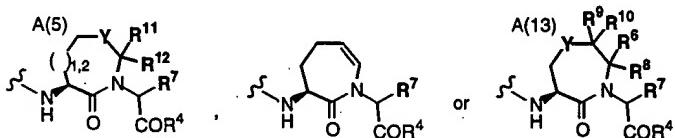


where Z = O or H, H



The fact that the above ring systems are monocyclic distinguishes them from the ring systems of Groups I, III, IV and V.

In the event that the Examiner takes the position that the ring systems to be examined in this case includes only a single hetero atom, namely, nitrogen, Applicant has amended the claims to define such a ring system which would include



Claims 1-15 are rejected as being drawn to an improper Markush Group. The Examiner indicates that

"the claims are drawn to multiple inventions for reasons set forth in the above requirement for restriction. This does not constitute an art recognized genus. Cancellation of the non-elected subject matter will overcome the rejection.

"This can be done by using the first structure of the last line of page 64, setting Y as CH<sub>2</sub>, and eliminating from the definitions of the variables, the ring forming options for combining R<sup>6</sup>-R<sup>8</sup>, R<sup>6</sup>-R<sup>10</sup>, and R<sup>9</sup>-R<sup>10</sup>."

As indicated, at the least, it is submitted that elected Group II should include the three monocyclic systems set out alone and possibly those monocyclic systems which include two nitrogen atoms.

The Examiner contends as follows:

"1. The term 'heteroaryl' is indefinite. Page 11 says, 'containing one or two O or S atoms'. However, an aromatic ring cannot have two such atoms. The term aryl normally requires that the ring be aromatic, and all the rings named in the paragraph are in fact aromatic. However, the paragraph only says 'unsaturated' which is broad enough to cover rings like tetrahydropyridine, which is not aromatic in the normal sense of the term.

"2. The term 'cycloheteroalkyl' is indefinite. It is internally contradictory, since a cycloalkyl cannot have a heteroatom.

"3. The R definition at Page 60, line 10-12 does not make sense. R is already joined with the Carbon to which it is attached. It can't form a ring without some other unspecified changes. Also, what kind of ring? What other atoms can this ring have? What is the nature of the bonding of the atoms in this ring?"

With respect to the term "heteroaryl", this term refers to an unsaturated hetero-containing ring as defined at great length on page 11 and may include one or two O or S atoms.

With respect to the term "cycloheteroalkyl", this refers to a cycloalkyl group which includes a hetero atom.

The terms "heteroaryl" and "cycloheteroalkyl" have been generally accepted by the Patent Office as shown in U.S. Patents Nos. 5,739,135 and 5,760,246 copies of Claim 1 of each being attached hereto.

As indicated in Claim 1, R can be joined with the carbon to which it is attached to form a 3 to 7 membered ring which will be a carbocyclic ring.

Claim 12 has been amended to delete the objected to term.

Claim 13 has been amended to delete "such as".

The abstract is objected to. The Examiner indicates that a definition is needed for R<sup>1</sup>, and the utility needs to be set forth. The Abstract has been amended accordingly.

Claims 13-14 rejected under 35 U.S.C. 112, first paragraph, "because the specification, while being enabling for hypertension and CHF, does not reasonably provide enablement for the full scope of 'cardiovascular diseases'." Claims 13-14 have been amended to delete the term "cardiovascular diseases."

In view of the foregoing, it is believed that all formal objections have been overcome and that Claims 1, 6, 7, 8, and 12 to 15 as amended are in condition for allowance.

Respectfully submitted,

  
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Attorney

Date: November 6, 1997

Patent  
Case No. HA680a

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I hereby certify that this correspondence is being deposited with the United States postal service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on November 6, 1998.

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Date: November 6, 1998